



Washington County

M A R Y L A N D

Maryland MS4 Forum
November 18, 2015

Washington County, Maryland
Post-Construction BMP O&M Program Showcase





Step 1

Data Entry

Upon site plan approval all BMPs assigned unique ID and entered into Stormwater Management (SWM)BMP Database, SWM GIS Map and County's building permit system

Step 2

Construction Inspections

Tracked through County's building permit system

Step 3

Post Construction Maintenance and Inspections

Once stormwater management BMP is completed and approved, the as-built approval date is entered into SWM BMP database, thus entering it into the que for maintenance inspections



Step 1

Notification/Review Owner Information

Commercial Sites – Notification in person (during operating hours)
Private Residences – Notified by mail
County Owned – No notification

Step 2

Maintenance Inspections

Inspections completed utilizing the maintenance inspection form
First year follow up inspection - completed one year after as-built approval
Triennial maintenance inspection – completed

Step 3

Report

Letter sent to owner only when the inspector determines that a repair and/or maintenance is needed for compliance

Step 4

Follow up

For sites that received repair notice a follow up inspection is completed 90 days after date of maintenance inspection
If deemed satisfactory, a letter of compliance is sent

Technologies Used

Washington County, Maryland Post Construction BMP O&M Program



Washington County Engineering Department
2010 Stormwater Management Structure Triennial Inspection
(Detention, Retention and Infiltration Basins)

Structure Name: Longstone Area Date: 6/15/2010
Structure Number: 03-04-76 Inspector: ADC Map
Location: 2700
Structure Type: DP WP IB Other 2700.3

Inspection Items	Circle One:	Comments:
General		
1. Standing Water	Yes <u>No</u>	
2. Mowing Required	Yes <u>No</u>	
3. Security Fence Inadequate	Yes <u>No</u>	
4. Dewatering Device Installed	Yes <u>No</u>	
Reservoir		
5. Erosion/Slides	Yes <u>No</u>	
6. Vegetative Cover	<u>Good</u> Average Poor	
7. Woody/Excessive Vegetation	Yes <u>No</u>	
8. Sediment	Yes <u>No</u>	
9. Trash/Debris	Yes <u>No</u>	
10. Sinkholes	Yes <u>No</u>	
Dam		
11. Erosion/Slides	Yes <u>No</u>	
12. Vegetative Cover	<u>Good</u> Average Poor	
13. Woody/Excessive Vegetation	Yes <u>No</u>	
14. Settlements, Depressions, Bulges	Yes <u>No</u>	
15. Movement at Toe	Yes <u>No</u>	
16. Seepage at Toes	Yes <u>No</u>	
17. Rodent Holes	Yes <u>No</u>	
Principal Spillway		
Type: Weir <u>CCP</u> RCCMP CMP Other		
18. Seepage/Tipping Along Barrel	Yes <u>No</u>	
19. Joints	Leaking <u>Offset</u> Satisfactory	
20. Concrete Condition	<u>Good</u> Cracking Spalling Exposed Rebar	
21. Trash Backs	Obstructed Broken <u>Operational</u>	
Outlet Channel		
22. Erosion in Channel	Yes <u>No</u>	
23. Vegetative Cover	<u>Good</u> Average Poor	
24. Riprap Condition	Adequate Undercut Displaced	
Emergency Spillway		
25. Erosion in Channel	Yes <u>No</u>	
26. Vegetative Cover	Good Average Poor	
27. Obstructed	Yes <u>No</u>	
28. Riprap Condition	Adequate Undercut Displaced	

Additional Comments:

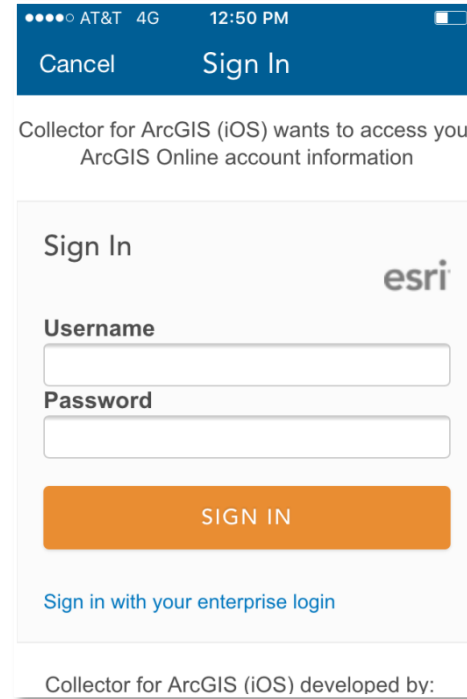
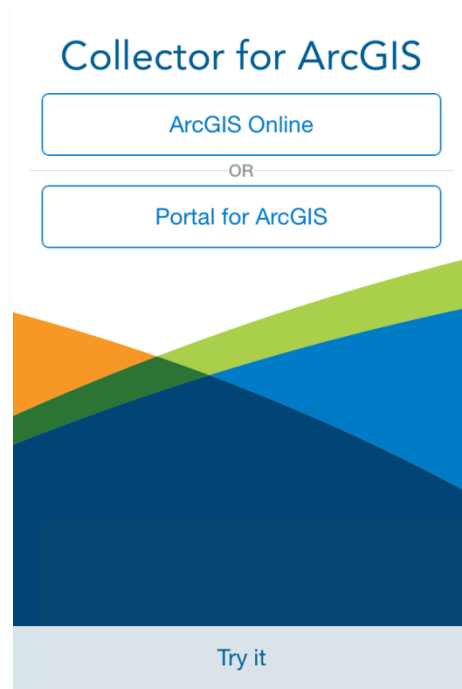
Result of Inspection:

PASS

FAIL

Esri Collector Application

Washington County, Maryland
Post Construction BMP O&M Program

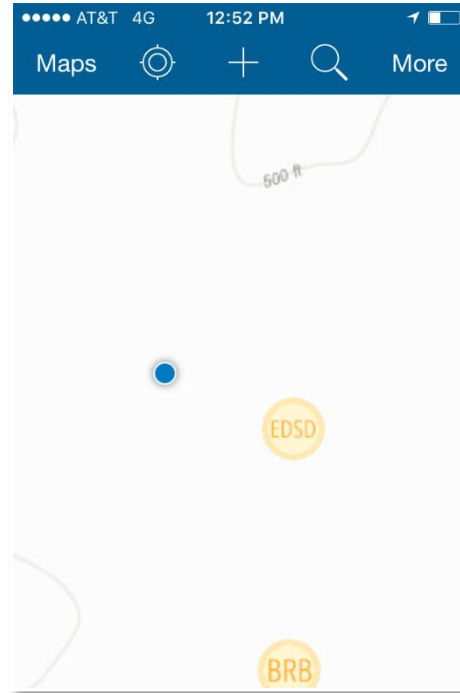
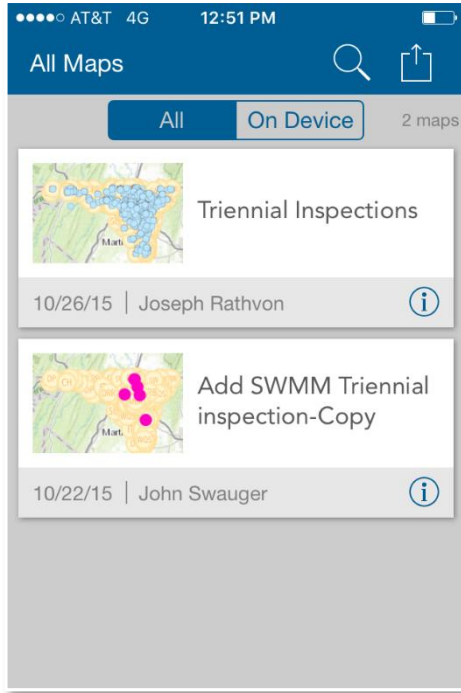


Beta Test

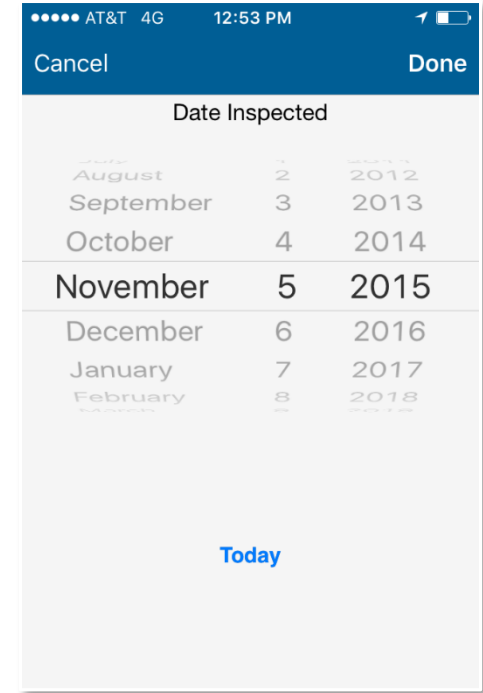
iPhone/iPad
interface with
Esri Collector
Application

Location Coordinates & Start Inspection

Washington County, Maryland Post Construction BMP O&M Program



Coordinates
of location
automatically
collected, just
press the +
button



Inspection Fields & Add Comments

Washington County, Maryland Post Construction BMP O&M Program



AT&T 4G 12:54 PM

Cancel [Settings] [Map] [Camera] Submit

Location
Lat: 39.637436° Long: -77.783588°

Date Inspected
November 5, 2015

Inspector
Triennial Inspections

Standing_Water
N

Mowing_Required

Security_Fence_Inadequate

Dewatering_Device_Installed

Reservoir_Erosion_Slides

Reservoir_Vegetative_Cover

AT&T 4G 12:54 PM

Cancel [Settings] [Map] [Camera] Submit

Location
Lat: 39.637436° Long: -77.783588°

Security_Fence_Inadequate

Dewatering_Device_Installed
N

Reservoir_Erosion_Slides
N

Reservoir_Vegetative_Cover

Woody_Excessive_Vegetation

Sediment

Trash_Debris

Sinkholes

AT&T 4G 12:54 PM

Cancel Done

Reservoir_Vegetative_Cover

<No value>

Good ✓

Average

Poor

AT&T 4G 12:59 PM

Cancel Done

Comments

Small saplings on berm near weir wall as well as toe of slope of fill portion of berm.

87/255

Q W E R T Y U I O P
A S D F G H J K L
↑ Z X C V B N M
123 [Smiley] [Microphone] space return

Attach Photos & Submit Inspection

Washington County, Maryland Post Construction BMP O&M Program



AT&T 4G 1:02 PM

Done Attachments

Add

Take Photo or Video

Choose From Library

Cancel

Cancel

Location Lat: 39.637188° Long: -77.783353°

Vegetative_Cover_Emergency_Spillway

Obstructed

Riprap_Condition_Emergency_Spillway

Comments
Small saplings on berm near weir wall as well as toe of slope of fill portion of berm.

Additional Comments

Pass_Inspection
Fail

Structure_No

Posting Attachments

AT&T 4G 12:54 PM

Cancel Settings Map Camera Submit

Location Lat: 39.637436° Long: -77.783588°

Date Inspected
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Inspector
Triennial Inspections

Standing_Water
N

Mowing_Required

Security_Fence_Inadequate

Dewatering_Device_Installed

Reservoir_Erosion_Slides

Reservoir_Vegetative_Cover

Program Overview

Washington County, Maryland
Post Construction BMP O&M Program



Successes

Integration of construction inspections into permitting software
GIS mapping of BMPs

Challenges

Significant increase in SWM
BMPs, especially single lot SWM
BMPs





Q&A



Stay Connected

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Post Construction BMP O&M Program



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